## REMARKS

### Claim Changes

Claim 1 is amended to recite "at least one panel border length for the PCB panel." Claim 1 is further amended to recite "performing an array length loop within the panel dimension loop that goes through each of a plurality of array lengths…performing an array width loop within the panel dimension loop that goes through each of a plurality of array widths." Similarly, claim 12 is amended to recite "performing multiple iterations regarding different potential dimensions of the at least one array within each iteration regarding potential dimensions for the panel." These changes are based on FIG. 1 and FIG. 4, steps 408-422 and the accompanying description on page 5, lines 4-6 and page 8, lines 3-8, lines 13-19, page 9, lines 9-11 (nesting algorithm), page 8, lines 6-8, of the specification as filed. Thus, no new matter is added.

No amendment made is related to the statutory requirements of patentability unless expressly stated herein. No amendment is made for the purpose of narrowing the scope of any claim, unless Applicant had argued herein that such amendment is made to distinguish over a particular reference or combination of references. Any remarks made herein with respect to a given claim or amendment is intended only in the context of that specific claim or amendment, and should not be applied to other claims, amendments, or aspects of Applicant's invention.

### Rejection of claims 1-19 under 35 U.S.C. §112

Claims 1-19 are rejected under 35 U.S.C. § 112. The Office Action in item 2 on page 2 states that "claims 1-19 are rejected under 35 U.S.C 112, second paragraph....as the independent claims 1 and 12 recite a PCB panel and further discloses at least one panel border width and at least one panel border width for the PCB panel, it appears that both panel border widths are referring to the PCB panel border width and it is unclear if they are the same PCB panel border width or if they are referring to two different border widths or if they are referring to two different PCB panels each with a border width." Applicant was unable to locate the above stated phrase "at least one panel border width and at least one panel border width for the PCB panel" in claim 12. Applicant, however, did find the phrase in claim 1 and has amended claim 1 to correct the typo-error mentioned in the previous response draft. The amended claim 1 recites "performing a panel dimension loop…comprising at least one panel width, at least one panel length, at least one panel border width, and at least one panel border length for the PCB panel." Support for this amendment is found at least on page 5, lines 3-6 of the Application as filed. Thus, no new matter has been added. Accordingly, Applicant respectfully requests reconsideration of claims 1 and 12, as amended.

Claims 2-11 and 13-19 depend upon, and include all the limitations of independent claims 1 and 12. Therefore, Applicant respectfully requests reconsideration of dependent claims 2-11 and 13-19 and requests the withdrawal of the rejection of these claims.

Rejection of Claims 1-3, 5, and 9 under 35 U.S.C. § 103 (a) as being unpatentable over Young et al (" Handling soft Modules in General Nonslicing Floorplan Using Lagrangian") in view of Chen et al. (" Floorplan Sizing by Linear Programming Approximation") in further view of Haims et al. ("A Multistage Solution of the Template-Layout Problem").

Applicant has amended the claims to clarify the invention. Applicant therefore respectfully requests reconsideration of the rejection of claims 1-3, 5, and 9 under 35 U.S.C. § 103(a) as being unpatentable over Young in view of Chen and Haims as herein amended.

Applicant respectfully submits that the combination of Young, Chen and Haims does not teach or suggest all the claim limitations as set forth in independent claim 1, as amended. Specifically, independent claim 1 requires "performing an array length loop within the panel dimension loop that goes through each of a plurality of array lengths for each iteration of the panel dimension loop; performing an array width loop within the panel dimension loop that goes through each of a plurality of array widths for each iteration of the panel dimension loop," which are not taught or suggested in the combination of Young, Chen and Haims.

Young is directed to floorplan designing using Algorithms such as Find-Width and Solve-LDP. Algorithm Find-Width is for computing optimal values of width for each module and the Algorithm Solve-LDP is for moving the arbitrary multipliers close to a new pair of multipliers for reducing the optimal value of width for each module. However, Young's Solve-LDP algorithm (equated to Applicant's panel dimension loop) and Find-Width algorithm (equated to Applicant's array length loop) are two separate algorithms performing independent to one another, and not performing one algorithm within the other algorithm. In contrast, Applicant's amended claim 1 recite "performing an array length loop within the panel dimension loop...performing an array width loop within the panel dimension loop."

Additionally, Young discloses that the optimal values of width is computed using edges e(i,j) that connect two modules in the horizontal and vertical constraint graphs. See Algorithm Find-Width, steps 3-8 in page 690. Also, the algorithm uses multipliers of horizontal and vertical constraints which are based on a sequence pair of modules. Thus, in Young's algorithm, the optimal values of width are computed based on placement relationship of modules or relative position of modules (See page 688, lines para. [005], lines 4-11), and not by utilizing each of a plurality of widths/lengths of their respective module. In contrast, Applicant's amended claim recite "performing an array length loop...that goes through each of a plurality of array lengths," and "performing an array width loop…that goes through each of a plurality of array widths." Therefore, the combination of Young, Chen and Haims does not teach or suggest the above claim limitations as recited in the independent claim 1, so the Applicant respectfully requests withdrawal of the rejection of claim 1 under 35 U.S.C 103.

Dependent claims 2, 3, 5, and 9 depend from, and include all the limitations of independent claim 1. Therefore, Applicant respectfully requests the reconsideration of dependent claims 2, 3, 5, and 9 and requests withdrawal of the rejection.

Rejection of Claims 4, 6-8, and 10-19 under 35 U.S.C. § 103 (a) as being unpatentable over Young et al (" Handling soft Modules in General Nonslicing Floorplan Using Lagrangian") in view of Chen et al. (" Floorplan Sizing by Linear Programming Approximation") in further view of Haims et al. ("A Multistage Solution of the Template-Layout Problem") and in further view of US 6295633 (Murakawa).

Regarding claims 4, 6-8, and 10-11, Applicant respectfully submits that Young, Chen, and Haims have been previously discussed and it has been clarified that a combination of Young, Chen, and Haims fails to describe "performing an array length loop within the panel dimension loop that goes through each of a plurality of array lengths for each iteration of the panel dimension loop; performing an array width loop within the panel dimension loop that goes through each of a plurality of array widths for each iteration of the panel dimension loop" recited in independent claim 1. Applicant has carefully reviewed Murakawa and Applicant respectfully submits that Murakawa also fails to overcome the deficiency of Young, Chen, and Haims in that Murakawa also does not describe the above mentioned limitations. Furthermore, claims 4, 6-8, and 10-11 depend from, and include all the limitations of independent claim 1. Therefore, Applicant respectfully requests the reconsideration of dependent claims 4, 6-8, and 10-11 and requests withdrawal of the rejection.

Regarding independent claim 12, Applicant has amended claim 12, similar to claim 1, to recite "performing multiple iterations regarding different potential dimensions of the at least one array for within each iteration regarding potential dimensions for the panel." Applicant therefore respectfully submits that the above discussed arguments apply equally to the limitations of claim 12 as amended. Applicant has also carefully reviewed Murakawa and Applicant respectfully submits that Murakawa also fails to overcome the deficiency of Young, Chen and Haims in that Murakawa also does not describe the above mentioned limitations. Applicant therefore respectfully requests withdrawal of the rejection of claim 12 under 35 U.S.C 103.

Dependent claims 13-19 depend from, and include all the limitations of independent claim 12. Therefore, Applicant respectfully requests reconsideration of dependent claims 13-19 and requests the withdrawal of the rejection of these claims. Applicant requests that claims 13-19 now be passed to allowance.

## Conclusion

Applicant has reviewed the other references of record and believes that Applicant's claimed invention is patentably distinct and nonobvious over each reference taken alone or in combination. Applicant respectfully requests that a timely Notice of Allowance be issued in this case. Such action is earnestly solicited by the Applicant. Should the Examiner have any questions, comments, or suggestions, the Examiner is invited to contact the Applicant's attorney or agent at the telephone number indicated below.

Please charge any fees that may be due to Deposit Account 502117, Motorola, Inc.

Respectfully submitted,

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